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PATENT COOPERATION TREATY

PCT/FR2002/004565



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference LIMAGRAIN1/2	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2002/004565	International filing date (day/month/year) 26 décembre 2002 (26.12.2002)	Priority date (day/month/year) 27 décembre 2001 (27.12.2001)
International Patent Classification (IPC) or national classification and IPC C08L 5/14, C09D 105/14, C08J 5/18, A61K 9/48		
Applicant ULICE		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 21 juillet 2003 (21.07.2003)	Date of completion of this report 02 April 2004 (02.04.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No. :	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2002/004565

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

☒ the international application as originally filed.

☐ the description, pages 1-26, as originally filed,
 pages _____, filed with the demand,
 pages _____, filed with the letter of _____,
 pages _____, filed with the letter of _____.

☐ the claims, Nos. 1-20, as originally filed,
 Nos. _____, as amended under Article 19,
 Nos. _____, filed with the demand,
 Nos. _____, filed with the letter of _____,
 Nos. _____, filed with the letter of _____.

☐ the drawings, sheets/fig 1/7-7/7, as originally filed,
 sheets/fig _____, filed with the demand,
 sheets/fig _____, filed with the letter of _____,
 sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	11, 12, 18-20	YES
	Claims	1-10, 13-17	NO
Inventive step (IS)	Claims		YES
	Claims	11, 12, 18-20	NO
Industrial applicability (IA)	Claims	1-20	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: EP-A-0 506 650 (ZENZ HELMUT) 30 September 1992
(1992-09-30);

D2: EP-A-0 612 789 (SORGHO AGRO-INDUSTRIEL ET
PAPETIER S.A.I.S.) 31 August 1994 (1994-08-31).

D3: WO 02 06411 A (ULICE) 24 January 2002
(2002-01-24).

I - Novelty:

I.1 Claim 1 relates to a film-forming composition for producing capsules. However, this latter feature, "for producing capsules", is not considered to have a limiting effect of the subject matter claimed.

The subject matter of claim 17 is defined by means of parameters. These parameters are typical values that correspond to properties that are directly measurable. Nevertheless, the fact that these properties have not been measured in the prior art

does not automatically render the subject matter novel over said prior art.

- I.2 Document D1 describes a packaging material, for example a film, prepared using a composition containing polysaccharides extracted from plant cell walls such as cellulose, hemicellulose(s), lignin(s), pentosans or pectins, a plasticiser such as glycerol or glycols (page 3, lines 43-46 and claim 4) and a filler (page 3, lines 47-51 and claim 5). Capsules are not, however, explicitly described.

Nevertheless, heteroxylans, pentosans and, according to the authors, pectins are components of hemicellulose. Moreover, "pentosans" include arabinoxylans.

As a result, the subject matter of claims 1-10 and 13-16 cannot be recognised as being novel over D1.

- I.3 Document D2 describes a method for producing strong, flexible biodegradable films using A and B hemicelluloses extracted from the pith of sorghum or maize (corn) cob in an alkaline medium. The use of plasticisers is thus optional. These films are used in the pharmaceutical industry to encapsulate or package products (page 2, lines 17-34). A plasticiser can be added if need be.

The subject matter of the claims differs from D2 essentially in that it requires the addition of at least one plasticiser and at least one gelling agent. It follows that the application is novel over D2.

I.4 European patent application WO 02 06411 A (ULICE) (D3), published 24 January 2002, claims a priority date of 18 July 2000. There are no uniform criteria in the PCT concerning the relevance of documents published between the priority date and the publication date of an application. However, provided that the applicant has paid the national fees required by Article 22, paragraph 1 or Article 39, paragraph 1 of the Cooperation Treaty, the European Patent Office will, for example, consider that, under the terms of EPC Article 54(3) and (4), the content of the earlier application as filed forms part of the prior art that must be taken into consideration when assessing novelty.

This earlier application discloses the use of heteroxylans from maize (corn) and rice bran to prepare a film-forming composition for encapsulating, for example, pharmaceutical products (page 1, line 5 to page 2, line 9; page 4, lines 4-10 and lines 21 and 22; page 6, lines 2-8, 16-20 and lines 25 and 26). It also discloses the use of a plasticiser, a gelling agent, a filling agent and a colouring agent (page 6, line 32 to page 7, line 27; page 9, lines 1-13; example II). A crop protection product is also added.

Example III relates to coating a tablet or seeds. The addition of a crop protection agent is not excluded by the wording of the claims. As a result, the subject matter of claims 1-20 is not novel over D3.

II - Inventive step:

Document D1 is considered to be the prior art closest to the subject matter of claims 11 and 12. However, the addition of a colouring or anti-oxidising agent is a routine technical step for a person skilled in the art. It follows that the subject matter of claims 11 and 12 does not involve an inventive step (PCT Article 33(3)).

Document D2 relates to the encapsulation of pharmaceutical products (column 2, lines 17-44) and is therefore considered to be the prior art closest to the subject matter of claims 18 to 20.

The claimed subject matter differs from the capsules produced in accordance with the teaching of D2 by virtue only of the addition of a gelling agent and, optionally, a filling agent. The problem solved by this step can be considered to be that of providing film-forming compositions suitable for producing hard or soft capsules. The addition of these two agents to the film-forming compositions as per D2 is also a routine technical step for a person skilled in the art, especially in light of D1.

It follows that the subject matter of claims 11, 12 and 18 to 20 is not considered to be inventive in relation to the relevant prior art.

III - Industrial applicability:

The preparation of capsules for packaging pharmaceutical, crop protection or food products.